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SOVIET STRATEGIC ROCKET FORCES: AN ANALYSIS

**An Intelligence Research Paper
Presented to
the Faculty of the
Defense Intelligence School**

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**DIRECTORATE FOR FREEDOM OF INFORMATION
AND SECURITY REVIEW (OASD-PA)
DEPARTMENT OF DEFENSE**

**In Partial Fulfillment
of the Requirements for the Degree
Master of Science in Strategic Intelligence**

**by
Stevan Roger Lucas**

June 1977

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SOVIET STRATEGIC ROCKET FORCES: AN ANALYSIS

ABSTRACT

The Soviet Strategic Rocket Forces (SRF) was created through a resolution of the Central Committee of the Communist Party of the Soviet Union (CPSU) in early 1960. Today it provides the USSR with its main nuclear striking force.

During its formative years, the SRF was promoted by Soviet and Western analysts alike as the primary arm of the Soviet military establishment. However, in view of recent major efforts by the Soviets to refurbish and modernize their conventional forces, there is some debate within the U.S. foreign intelligence community on the current status of the SRF. This paper analyzed Soviet and Western open literature to determine if the SRF was today the primary arm of the Soviet military and enjoyed the various priorities associated with such stature.

This paper concentrated on primary, open-source, and Soviet officially-endorsed writings. In addition, an extensive review of pertinent writings from the West was made.

This study concentrated on open-sources to demonstrate the usefulness of open-source literature and the valuable information it can provide to members of the U.S. foreign intelligence community. In particular, it is suggested that a careful analysis of open-source Soviet writings can provide an insight into the more sensitive areas of collection where more elaborate and expensive collection efforts often fail or are not cost effective. For example, the launching of Sputnik I caught the Western world by surprise. A post-mortem indicated that plans for the launching had been discussed, matter of factly, in Soviet scientific journals for at least a year prior to the launch.

On the strength of the research undertaken, it can be stated that even in view of recent attempts by the Soviets to upgrade and deploy their conventional and other aerospace forces, the top leadership still holds the SRF in a preeminent position with respect to the armed forces of the Soviet Union.

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Chapter 1

INTRODUCTION

In the past few years the Soviet Union has made dramatic efforts to improve and modernize its conventional war capability. Quality improvements in ground forces and their organic equipment, aircraft, and surface naval ships suggest that the Soviets have downplayed the vitality of strategic weapon systems. This speculation has suggested that the top Kremlin leadership has also encountered difficulty with the American concepts of mutual deterrence, mutual assured destruction, strategic parity, et al., to the degree that the Soviets have lessened their primary dependence on strategic, nuclear war as the vanguard against the West.

The purpose of this paper was to examine the preeminence of the Strategic Rocket Forces (SRF) within the Soviet military establishment, to include an analysis of the current Soviet debate on conventional versus strategic forces. The base of this presentation concentrates on the validity of the nuclear doctrine and that part in which the SRF plays a role.

Heavy reliance has been placed on Soviet officially-endorsed writings, and herein lies one of the major cautions of the research material. Since official publications released by the Communists are liberally doused with the standard Marxist-Leninist esoteric vocabulary with its heavy-handed propaganda theme, it is often regarded as the least reliable information. This paper intends to demonstrate that even this communist rhetoric has exceptional value for the cognizant analyst.

The Soviets have often demonstrated a proclivity to provide valuable information in their official publications. They publish in open-sources many of the guiding pillars which shape the Soviet thought process. It then becomes the task of the reader to ferret out the salient features and analyze the material - unencumbered by the Communist dialogue.

Chapter 2

OVERVIEW OF THE SOVIET STRATEGIC ROCKET FORCES

The Soviet Armed Forces

The Soviet armed forces currently consist of ground, naval, air defense, and rocket forces. Each of these separate services is highly interdependent upon the Soviet military establishment as a whole, but is also rather independent to perform its specific and assigned missions.

The armed forces of the Soviet Union officially date from 1918, when after the revolution, the Bolsheviks attempted to provide their shakey regime with the necessary military support to insure its survivability. As with the history of most military organizations, the Soviet military establishment can be traced through a series of dramatic events and periods which shaped its development. But the scope of this paper will focus around January 14, 1960, when Secretary of the Communist Party of the Soviet Union (CPSU) Nikita Khrushchev announced, for the first time, that a new military doctrine had been formulated based upon the primacy

of the nuclear rocket weapon.

Development of the Strategic Rocket Forces

The SRF was formed as a separate military service in December 1959, under the command of Army General M.I. Nedelin. The scope of operations and the mission assignment of the SRF required an entirely new military structure which was different from most existing military branches. Most of the manpower and support equipment came from the ground and artillery forces. But the mission of the SRF was so revolutionary that it was necessary to develop new tactics and strategies to effectively utilize this new weapon system. For the first time the nuclear military might of the USSR could be projected into the international arena.

Doctrine and Mission of the SRF

The primary mission of the SRF is to attack and destroy the major strategic components of the enemy, to destroy the enemy's means of nuclear attack, main military and governmental elements, and industrial war-making capacity. In the late 1960's and early 1970's the Soviets began in earnest to reveal to the world the doctrine, strategy, and tactics for the utilization of this massive new military force. Marshal Malinovskiy's early dictum that in future wars nuclear weapons would be the principal means of destruction, and that missiles

would be the principal means of delivering these weapons on target has repeatedly been reaffirmed in open literature by Soviet military authors. In its simplest terms, the essence of this new military doctrine was that the armed forces, the country, and the whole Soviet people must be prepared for the eventuality of nuclear rocket war.¹

From much of the open source literature which is available today, the entire structure of the Soviet armed forces has undergone a vast realignment in order to meet the new demands of the nuclear doctrine. The development of the nuclear doctrine was embellished by the creation of the SRF. According to Dr. William F. Scott (Colonel, USAF, Ret.), from its beginning in 1959, the SRF has been considered to be the primary service for the protection of the Soviet Motherland, and the Commander-In-Chief of the SRF usually takes precedence over the other chiefs of the major military branches.²

Under the sponsorship of Secretary Khrushchev, the SRF was developed to constitute the main strategic force of the USSR. Its development has continued to the present day with the obvious support of Secretary Brezhnev, and continues to enjoy top priority with respect to research and development, production, and improvement of launch facilities. The past few years have seen the ICBMs of the SRF accounting for an increasing

proportion of the total Soviet nuclear offensive capability - outnumbering Submarine-Launched Ballistic Missiles (SLBMs) by a better than two-to-one margin.

In the mid-1960s, many Americans appeared confident that the Soviet Union had resolved itself to settling for a position of nuclear inferiority. It now is apparent that the CPSU had remembered well the lessons of the Cuban Missile Crisis and had resolved to never again be placed in a subordinate position with regards to nuclear parity.

The late 1950s were a period in which the Soviet Union concentrated its attention on the deployment of intermediate and medium-ranged ballistic missiles in order to defend against immediately adjacent enemies. Once this priority was accomplished, a carefully planned, massive program was implemented which procured an entirely new generation of reliable, intercontinental-ranged missiles. In fact, a whole industry was developed for the ICBM project and the replacement and improvement of these missiles continues today at a rapid pace. In past months, the Soviets have deployed an operational fleet of four new ICBM systems, three of which probably contain MIRVed warheads. "There is evidence that about ten new ICBM systems are under development in addition to the four large and advanced systems that are presently entering the Soviet inventory."³

FOOTNOTES

¹William F. Scott, trans., "Address to the XXII Party Congress," (contained in XXII Congress of the Communist Party of the Soviet Union, Stenographic Notes, 17-31 October 1961), by Marshal of the Soviet Union, R. Ya. Malinovskiy, Moscow: Politizdat, 1962, Vol. II, p. 111.

²William F. Scott, "Soviet Aerospace Forces: Continuity and Contrast," Air Force Magazine, March 1976, p. 39.

³Edgar Ulsamer, "The Soviet Juggernaut: Racing Faster Than Ever," Air Force Magazine, March 1976, p. 61.

Chapter 3

ORGANIZATION OF THE STRATEGIC ROCKET FORCES

Strength, Composition, and Disposition

The SRF probably consists of over 300,000 elite troops. The commander-In-Chief of the SRF is directly responsible for the organization and administration of his organic weapons and personnel and for developing the command and control needed to implement the directives of the Soviet command authorities. The headquarters command of the SRF consists of the commander, the main staff for implementing his directives, and directorates for political administration, engineering, inspection, combat training, and rear services.

Since the early 1960's the Soviets have developed and field-deployed a family of missiles which have the operational capability of reaching and possibly neutralizing any potential enemy in the world. To realize this capability, the Soviets have developed three basic families of missiles: (1) intercontinental class missiles with ranges between 2500 and 7500 nautical miles, (2) intermediate-range missile with a maximum range up to 2500

nautical miles, and (3) medium range missiles up to 1000 miles.¹ The approximate numbers that are operationally deployed for the intercontinental, intermediate, and medium-ranged missiles are 1600, 100, and 500 respectively.²

The SRF is deployed at approximately 20 operational and/or test launch complexes within the USSR. The IRBM and MRBM deployments have largely been centered near the Soviet western border and east of the Ural mountains, along the Sino-Soviet border.³ ICBM deployment is concentrated along major rail lines of Central Russia and according to General George S. Brown, Chairman of the U.S. Joint Chiefs of Staff, "the Soviets are going to considerable lengths to protect and harden their new generation ICBMs and their launch control and communications facilities".⁴

Evolution of the SRF High Command

When the SRF was created in 1959, it was necessary for the Soviets to develop an entirely new employment concept in that Khrushchev had envisioned a dramatic role for the SRF in the world arena. A role in which the Soviet had previously little experience.

The new strategic missile command imposed a radical alteration on the structure of the Soviet Forces, bringing the engineer officers into greater prominence and contributing to the steady diversification of skills within the Soviet officer corps.⁵

The personnel who were to staff the initial cadre of

the SRF were hand-picked from the various armed branches, especially the artillery and ground forces. For most of this initial cadre, the assignment was fraught with uncertainty. General Tolubko commented on his early experience in the SRF in a 1974 issue of Izvestiya; "all of us had to work hard to master our new pursuit. This, of course, was not easy, not simple".⁶

The first chief of the SRF was General of the Army M. I. Nedelin, who commanded the SRF from December 1959 until October 1960. General K. S. Moskalenko assumed command from October 1960 until April 1962, then turned over the SRF to General S. S. Biryuzov for a period of one year until April 1963.

In April 1963, General of the Army N. I. Krylov⁷ became Commander-In-Chief of the SRF and held that position during most of the formative years of the SRF. General Krylov was 60 years old when he was directly appointed by Secretary Khrushchev to take over "one of the most prestigious services of the military establishment".⁸ General Krylov's career, like so many of the Soviet Union's top military leadership, spanned almost the entire period of Soviet rule. He joined the Red Army in 1919 and fought in the civil war against the White Russians.

During World War II, General Krylov was commander of the Black Sea port of Odessa where he led Soviet forces

in a 69 day seige laid to that city by the Germans. After resisting the German advance at Odessa, General Krylov commanded troops in the fight for the beseiged city of Sevastopol, and participated in the battle of Stalingard. At the end of WW II, General Krylov commanded Soviet forces in the important Far Eastern Military District, on Sakhalin and the Kurile Islands, in the brief campaign against the Japanese. He remained in the Far Eastern Military District until 1955. He then commanded the Urals Military District before going to Leningrad in 1957. Finally he was given the prestigious command of the Moscow Military District in 1960 and held that post until his promotion to the SRF in 1963.

As the commander of the SRF, Krylov was promoted to the rank of Marshal and became an exofficio Deputy Defense Minister. From 1961 until his death in 1972, he was a member of the Central Committee of the CPSU, and was a delegate to the Supreme Soviet. When he died, Marshal Krylov was given a Red Square funeral which is reserved for notables, and his ashes were immured in the Kremlin wall.

Marshal Krylov made news in the West when he periodically made rather militant statements warning the United States against starting a nuclear war with the Soviet Union. He also caused great consternation in the

West at the start of the SALT negotiations when he appeared in an article in the Soviet newspaper Sovietskaya Rossiya and stated that Moscow did not subscribe to the American position that there could be no winner in a nuclear war.⁹ Marshal Krylov had previously gone on record saying that the United States was preparing for a surprise attack against the Soviet Union but so far had been deterred by Soviet nuclear might.¹⁰

In 1972, General of the Army Vladimir F. Tolubko¹¹ was recalled from his position as Commander of the Far Eastern Military District to take over command of the "Soviet Union's most prestigious military arm".¹² General Tolubko joined the Red Army in the 1930's and was graduated from the Armored Forces Academy in 1941. In World War II he became chief of staff and commander of a brigade of armor. General Tolubko's rise in the military hierarchy dates from the postwar period when he attended the General Staff Academy, which is the Soviet Union's highest military school - comparable to the U.S. National War College.¹³ He graduated in 1951 and first commanded an army division, then an army.

General Tolubko was identified as the First Deputy Commander of the SRF in 1961. He remained in this position until 1965 when he was transferred to the Soviet Far East where he obviously performed well during

the Sino-Soviet border clashes in 1969. In 1972, Tolubko was recalled to take command of the SRF. His selection over Colonel General Grigoryev, who had been the SRF Deputy Commander since 1965, was seen to suggest that seniority was then a more significant factor for promotion in the inner circles of the Soviet Armed Forces. General Grigoryev had a much stronger technical and engineering background than General Tolubko.

General Tolubko's rise in the Soviet military establishment is typical of the small number of generals who saw wartime service, attended the General Staff Academy, and passed the crucial career points which have been enacted as Soviet law. General Tolubko also enjoyed the patronage of Generals Nedelin and Biryulov under whom he served as a lieutenant colonel in 1948.¹⁴

When General Tolubko replaced Marshal Krylov in the spring of 1972, it was presumed that the post carried with it appointment to Marshal. To date, Tolubko has not been promoted to that rank¹⁵ and his age now places him at the 60 year barrier and the command of the SRF could well be his last operational military assignment.

FOOTNOTES

¹The ranges for each cited missile system are those normally assigned by the U.S. foreign intelligence community.

²The Military Balance, 1975-1976 (London: The International Institute of Strategic Studies, 1975), p. 8.

³Ibid., p. 9.

⁴George S. Brown, "Strategic Forces: How America & the Soviets Compare," Commanders Digest, Vol. 19, No. 9/April 15, 1976, p. 3.

⁵John Erickson, Soviet Military Power (Washington, D.C: United States Strategic Institute, 1973), p. 7.

⁶V. F. Tolubko, Commander-In-Chief, Strategic Rocket Forces, "Sovereigns of the Missile," Izvestiya, November 15, 1974; as cited in U.S. Joint Publications Service, trans.,

⁷Biographic information on General Krylov was assimilated from various sources including conversations with guest speakers at the Post Graduate Intelligence Course, Defense Intelligence School; articles published in The New York Times; and information from John Erickson's Soviet Military Power, cited above.

⁸"Marshal Nikolai I. Krylov Dies: Directed Soviet Missile Forces," The New York Times, February 11, 1972, p. 27.

⁹William Beecher, "U.S. Arms Officials Worried by Soviet Article," The New York Times, September 10, 1969, p. 42.

¹⁰Bernard Gwertzman, "A Soviet Marshal Sees U.S. Threat," The New York Times, August 31, 1969, p. 32.

¹¹Biographic information on General Tolubko was assimilated from various sources including class notes from the Post Graduate Intelligence Course, Defense Intelligence School; Grace P. Hayes and Paul Martel, eds., World Military Leaders (New York: R.R. Bowker Co., 1974), p. 226; various articles published in The New York Times; and John Erickson's Soviet Military Power, cited above.

¹²Theodore Sharad, "A New Soviet Missile Chief is Disclosed," The New York Times, May 10, 1972, p. 60.

¹³Harriet Fast Scott, "Educating the Soviet Officer Corps," Air Force Magazine, March 1975, p. 60.

¹⁴Nedlin was the first commander of the SRF and Biryuzov was Chief of the Soviet General Staff from 1963-1964, a fact which obviously aided Tolubko's career.

¹⁵It was erroneously reported by The New York Times in 1974 that Tolubko and a number of other Soviet generals had been promoted to Marshal. The Soviets had only redesigned the general rank insignia.

Chapter 4

EDUCATING THE STRATEGIC ROCKET TROOP

Overview of the Soviet Military Education System

For many years Soviet efforts to induct highly qualified youth into the military services were inhibited by a population which was largely illiterate. Today the induction of well-educated youth is facilitated by the rapidly increasing level of education of the younger members of the Soviet population. Even in the countryside more than half of the rural population is said to have had a higher or secondary education, as compared to only six percent before World War II.¹ This now makes it possible for the army and navy to recruit "well-educated young representatives of the peasantry".²

One of the main provisions of the Soviet Union's ninth five-year plan (1971-1975) specified a transition to a universal ten-year education program. In 1970 the Soviet Union produced 3.2 million high school graduates who had completed a ten-year education. Universal ten-year education was to require the annual graduation

of 4.5 to 4.7 million students by 1975.³ Since the Soviet Union inducts approximately 1.3 million persons annually - military educational requirements will presumably be met even more easily in the future. This assumption was supported recently when Lieutenant Victor Belenko, the Russian pilot who defected last year with his MIG-25 jet fighter, testified that the average Soviet soldier, a conscript 18 to 20 years old, has the Russian equivalent of a high school education.⁴

In response to the operational deployment of nuclear weapons, specifically the missiles of the Strategic Rocket Forces and the submarine-launched ballistic missiles of the navy, the Soviets have implemented a system of formal military training. A system of training whose scope of operation, number of institutions involved, and support from the military and state establishments is most impressive by Western standards.

The nuclear age has brought about many new requirements in Soviet military education for components such as the SRF, Troops of the National Air Defense (PVO Strany), air forces, SLBM elements of the navy, and the missile and air defense elements of the ground forces. The Soviets appear to have quickly realized the need to train personnel for leadership positions in these highly complex and technical forces. They have, therefore,

created a structure for the education and training of the contemporary officer and enlisted member which far exceeds that of their primary opponents.

Soviet emphasis on the high educational level of the Soviet soldier ("the best educated in the world; the best read in the world"⁵) is in part a reaction to the rapid change in the educational composition of the troops, but also seems a reaction to the old image of the Soviet soldier as an uneducated peasant with little or no worldly experience.

In 1971, every second serviceman in the forces had completed a full ten year secondary or higher education.⁶ In the same year 80 percent of these individuals inducted had received either a higher, secondary, or incomplete secondary education. For 1972 the figures rose to more than 90 per cent.⁷

In the case of officer personnel, the Soviets send a much higher percentage of better-educated inductees into the more technically-oriented services of the SRF and SLBM elements of the navy.

The Soviet Soldier

In order to provide proper service to the cadre of Soviet officers, a vast network of military schools has been located in more than 80 major cities spread across the country. The Soviets have also made extensive use of a number of military facilities which are collocated with civilian institutions, comparable to the Reserve

Officer Training (ROTC) program used in the United States. The manpower, material support, and physical plant used to support this massive structure of approximately 160 schools, academies, and institutions takes the combined efforts of what amounts to almost a separate major military/civilian service.⁸

Harriet Fast Scott in an article written for Air Force Magazine has commented on this extensive Soviet effort:

In the United States, the three service academies - West Point, Annapolis, and the Air Force Academy - are a primary source for officer inputs. The Soviet Union has some 24 secondary military schools and 118 higher military schools that have been identified and which offer three-year to five-year courses of officer training for the same age group as do the three service academies of the United States. The size of the Soviet officer program is almost incomprehensible by Western standards.⁹

As the Soviet officer continues with his career he usually tries to gain admittance to one of the service academies which are comparable to the war and staff colleges of the U.S. military. Admission to these academies is most competitive and the average candidate will spend two or three years' preparation amounting to 2,000 to 3,000 hours study.¹⁰

Each of the separate military branches has its own academies and schools which concentrate on the parochial needs of that particular branch. In addition,

there are some academies higher up on the ladder of prestige which are open to officers of all branches (probably similar to the Joint Chiefs of Staff-sponsored schools such as the Armed Forces Staff College, et al).

Troops of the Strategic Rocket Forces

The Strategic Rocket Forces maintains and controls the admission of candidates to its own schools. Once a year all of the military branches "advertise" for recruits in selected Soviet newspapers and periodicals. The SRF is not specifically mentioned but the prospective recruit can usually identify the SRF schools by applying for those schools which are named for former commanders of the SRF such as the Kharkov Higher Military School which is named for Marshal of the Soviet Union N. I. Krylov, the Riga Higher Military Command School named for Marshal of the Soviet Union S. S. Biryuzov, etc.

For the most part, these schools offer highly-technical courses of instruction which are designed to produce a particular type of graduate officer - labeled by Roman Kolkowicz as a "technocrat":

New military experts have assumed broad authority within the military community. Younger, well-trained technical officers, experts on the new equipment and weapons, have entered the officer community in large numbers, where they enjoy certain prerogatives denied others. These are the officers, referred to here as "technocrats", who maintain and operate the complex military equipment and weapons of thermonuclear war.¹¹

The course of instruction at these military schools is normally five years in length and leads to degrees or qualifications as military mechanical engineer, electrical engineer, military engineer in electronics, etc.

After serving in the SRF for a number of years, the SRF officer will most likely aspire for attendance at the "Rocket Academy" named for F. E. Dzerzhinskiy. This school is located in Moscow and offers a three-year course of instruction which is comparable to the intermediate-level military schools in the U.S. - which are usually less than one year long. If the SRF officer continues his climb to the top and is either very bright or has well-placed patronage, he can gain admittance to the Soviet Union's highest military school - the Academy of the General Staff. This school is two years in length and on a level with the National War College of the U.S. military establishment.

The degree of support and faith which the Soviets place in these SRF programs is even more impressive when compared to the SRF's counterpart in the Strategic Air Command of the United States Air Force. While the SRF launch officer will spend over five years preparing for his job, his American counterpart will receive a little over three months of specialized training. There is probably no other training discrepancy of such magnitude

between U.S. and Soviet military counterparts. This is not to suggest that the Soviet launch officer is superior in the performance of his assigned duties, but it does demonstrate the great amount of time and effort which is required of the contemporary SRF officer. There is possibly no other branch of the Soviet Armed Forces which makes more academic demands of its members than does the SRF.

The CPSU is giving serious attention to the problem of staffing these SRF forces with new personnel. More than 60% of these conscripts entering these units have a secondary or higher education which allows them to master in a very short time the very complex missile technology and the means of its combat application. The formidable technology and the people who have mastered it constitute that alloy from which are (sic) forged the nuclear rocket shield and the sword of our Socialistic Fatherland.¹²

At present, approximately half of the Soviet officer corps has a higher military or specialized education, which equates roughly to a bachelor's degree in the United States.¹³ In the SRF more than 80 per cent of the officers are engineers and technicians. It is in the area of academic excellence that seems to be the most positive haute couture of the Soviet military establishment.

For a peacetime military force, the magnitude of education and training provided for the Soviet Armed Forces is remarkable. Whereas the education syndrome

appears across the entire spectrum of the Soviet military establishment, the education of the SRF technocrat does seem excessive even by Soviet standards. It could be argued, however, that given the rather parochial needs of the various branches, that the Soviet system may produce officers with narrow professional backgrounds. How the Soviet officer will compare with his counterpart from the ROTC or military academy environment is a matter of conjecture.

One thing is certain. Formal education and training for the Soviet officer is a state-supported program of enormous proportions. The manpower and physical plant for the vast network of academies and other higher military schools obviously enjoys a high priority for construction and maintenance. Each year the graduates of the academies are invited to a reception at the Kremlin's Palace of the Congresses - an honor reserved for notables in the Soviet society.

FOOTNOTES

¹Krasnaya Zvezda, February 3, 1972, pp. 2-3; as cited in Herbert Goldhamer, The Soviet Soldier: Soviet Military Management at the Troop Level (New York: Crane Russak and Company, Inc., 1975), p. 22.

²Ibid.

³Mikhail A. Prokofyev, Soviet Minister of Education, at the Twenty-fourth Party Congress, as cited in The New York Times, June 26, 1971.

⁴"Defector Confirms View of Life in Soviet Military," Washington Post, February 17, 1977, p. 13.

⁵Kommunist Vooruzhennykh Sil, No. 4, February 1974, pp. 9-17; as cited in Goldhamer, op. cit., p. 22.

⁶K. S. Moskalenko, "Loyal Sons of the People," Soviet Military Review, No. 9, 1971, p. 4.

⁷Kommunist Vooruzhennykh Sil, No. 1, January 1973, pp. 76-83; as cited in Goldhamer, op cit., p. 21.

⁸Harriet Fast Scott, "Educating the Soviet Officer Corps," Air Force Magazine, March 1975, p. 57.

⁹Ibid.

¹⁰_____, "The Military Profession in the USSR," Air Force Magazine, March 1976, p. 80.

¹¹Roman Kolkowicz, The Impact of Modern Technology on the Soviet Officer Corps, (paper presented at the 6th World Congress of Sociology, Evian, France, September 6, 1966) p. 2.

¹²Petr A. Gorchakov, "Loyal Sons of the Fatherland," Red Star, November 2, 1973; as cited in Soviet Press Selected Translations, translated by the Directorate of Threat Applications (AF/IN), Headquarters, United States Air Force, October 1, 1974, p. 25.

¹³Scott, op cit., p. 79.

Chapter 5

DEMOGRAPHIC AND SOCIOLOGICAL FEATURES OF THE STRATEGIC ROCKET FORCES

Primacy of Ethnic/Nationality Groups

The population of the Soviet Union is made up of a large number of different nationalities speaking various languages, many of which have absolutely no affinity to each other. This nationality problem haunted the early tzarist regimes, and without a doubt had a significant contribution to the 1917 revolution. Since that time it has been a major problem for the communist government of the USSR.

The language differences of these various groups has traditionally plagued the solidarity desires of Soviet leaders, and has had quite a disquieting effect on the military forces. For the most part, however, the various services have recognized and accepted the fact that the bulk of its rank and file will, out of necessity, be drawn from the youth cadres of many different nationalities. The Soviets have attempted to mold these various nationalities into a professional military unit. Their desire is to demonstrate the

cohesiveness and solidarity formed by the common bond of communism. "That ethnic diversity does not negatively effect the national security and on the contrary is a source of strength is a frequent Soviet theme."¹ The Soviets feel that Hitler was badly mistaken when he thought that the USSR was an ethnic conglomerate whose level of internal unity would make it easy to conquer. It still remains a major objective of Soviet political activity "to solidify the peoples of the nationalities around the Party and the government."²

That there is some hostility and tension between some of these nationality groups is a statement of fact which has been given some publicity in the Soviet press. The whole attempt to provide a harmonious lifestyle within the armed forces stems from the Soviet's awareness that the bulk of the youth available for military service will increasingly be from the various nationality groups, and that any tension or disruptive influence can only serve to decrease combat readiness which is one of the most prevalent themes in the Soviet military.

One might think that a vital and sensitive command like the SRF would be dominated by the Slavic nationalities. It has been difficult, however, to determine from open-source literature whether or not this is the case. Information on the rank and file of the SRF is difficult

to obtain aside from its advanced system of military education. Lieutenant Belenko, however, stated that about 29 per cent of the Russian army is composed of members of minority groups who are not fluent in the Russian language.³

Given the proclivity of the Soviets to place highly educated technocrats in the SRF - this at least presumes that these technocrats possess a fluent knowledge of the Russian language. This is reasonable in view of the fact that all of the entrance examinations which are required to gain access to the prestigious military academies are administered in Russian. Almost all of the Soviet regulations and manuals are written in Russian, and the top levels of command and control communications, in which the Soviets place great emphasis on voice communication, are conducted in Russian. In addition, all combat training and political indoctrination are presented in Russian. The Soviet military publication Kommunist Vooruzhennykh Sil stated the case essentially:

It could not be otherwise. Our army is a unified combat organism embodying the unity of will, action, and aspirations of the Motherland's armed forces. It is natural that the Soviet soldier use one language for all their duties and studies. This language is Russian - the most widespread language in our country and the language of international intercourse voluntarily chosen by all the USSR peoples.⁴

Given this reliance on the Russian language, it is reasonable to assume that the Slavic nationalities probably make up the bulk of the strategic forces. This Slavic preference usually is extended to those forces which have the greatest amounts of power and prerequisites in the Soviet Union - the CPSU apparatus, governmental hierarchy, KGB, etc.

CPSU Affiliation

Some discussion has been presented on the relationship of the Soviet military establishment and the CPSU. The Party's claim to leadership of the military is one of the major tasks of the Main Political Administration (MPA) of the Soviet Armed Forces. Through the ubiquitous political officer, the Party loses no opportunity to instruct officers and troops that it, and not the military commander, is the leader and controller of the military. Party-army tensions, however, have existed throughout most of Soviet history. The army has enjoyed periods of relative independence, but the Party more often has been able to assert itself and retain tight control.

Approximately 70 percent of all Soviet officers are members of the CPSU.⁵ The majority of young officers who are CPSU members continue to work in Komsomol organizations which contain the overwhelming majority of

all military personnel. Within the SRF, CPSU and Komsomol membership in 1972 was about 90 per cent.⁶

It is understandable that the CPSU would make a concerted effort to staff one of its most sensitive commands with CPSU members whose reliability and loyalty are enhanced through strong ideological ties. It should be pointed out, however, that the general trend in the Soviet military is to align about 90 per cent of its officer corps in the CPSU. The 90 per cent figure for membership in the SRF is also shared by the Soviet navy, while the other three main branches of the military continue to grow with about 80 percent membership.⁷

The technocrats of the SRF, however, must present the Soviet leadership with one of its most perplexing problems. While the CPSU strives to insure that almost all of the SRF officer corp belongs to the Party, it is these same officers who may be demonstrating the greatest resistance to following the edicts of the CPSU. Roman Kolkowicz has written about the endemic conflict between technical professionalism and politicization in the officer corps, or the question of allotting more time for technical studies at the expense of political indoctrination. Pilot Officer R. G. Smith of the Royal Air Force has summed up this conflict:

The Russians themselves deny that political indoctrination within the armed forces is anything but complete. Whilst there is probably no opposition as such in any dangerous amounts, the scientifically trained officer, whose usefulness is apparent due to the increased complexity of weaponry and the fact that any future war will be won as much by empirical formulae as the determination of men, will perhaps be less susceptible and less ready to swallow the more ridiculous aspects of communist propaganda, and it must be that this is causing concern to the party leadership although the situation is not such that any major upheaval is likely in the near future.⁸

FOOTNOTES

¹Goldhamer, op cit., p. 187.

²Kommunist Vooruzhennykh Sil, No. 17, September 1972, pp. 24-29; as cited in Goldhamer, ibid., p. 187.

³The Washington Post, op cit., p. 13.

⁴Krasnaya Zvezda, January 20, 1973, p. 1; as cited in Goldhamer, op cit., p. 189.

⁵Goldhamer, ibid., p. 308.

⁶Ibid., p. 263.

⁷Ibid.

⁸R. G. Smith, "Political Controls Within the Structure of the Soviet Armed Forces - Some Problems?" Royal Air Force Quarterly, Spring 1976, p. 49.

Chapter 6

SOVIET VIEW OF THE WORLD ARENA AND THE ROLE OF THE SRF

Definition of Soviet Military Doctrine

Basic Definition. During the past decade, the Soviets have devoted much time and effort towards the development of an acceptable military doctrine which allows for a careful analysis of war and the proper employment of nuclear weapons. It is this nuclear doctrine which has acted as a bridge between the practical applications of military science and the principles for military operations. Whereas the basic and theoretical fundamentals of nuclear war are thrashed out at the General Staff level, the actual outcome of the discussion is labeled as nuclear doctrine and must have the full blessing and concurrence of the state and the CPSU as a pronouncement. The doctrine will then become least accessible to independent interpretation. As stated in the third edition of Military Strategy:

Military doctrine is the expression of the accepted views of a state regarding the problems of political evaluation of future war, the state attitude towards war, a determination of the nature of future war, preparation of the country for war in the economic and moral sense, and regarding

the problems of organization and preparation of the armed forces, as well as the methods of waging war.¹

The development of a Soviet military doctrine is usually dependent upon a historical epoch. The Soviets refer most often to combat operations against the Germans in World War II, or as the Soviets prefer to call it - the Great Patriotic War. The Soviets are quick to recall the Great Patriotic War for two reasons: it provided the most recent opportunity (aside from some border clashes with the PRC in 1969) for the Soviet military to prove its mettle; and it also provided the only real opportunity for the CPSU to expound upon the successes of the military arm of the socialist state.

The war with the Nazi German army - the strongest and most experienced in the capitalistic world - was a serious trial for Soviet military thought. It proved that the concepts on the character and methods of armed struggle formed by the Communist Party and by the Soviet military science was basically correct.²

The Party and Ideology. For the most part, the development of military doctrine in the West is largely a result of the independent thinking of its military professionals. This development is guided, to be sure, by the basic tenants and perceptions of the political faction in power, but this political consideration does not permeate and dominate the developmental process as it does in the Soviet Union. In fact, a good

understanding of Soviet military doctrine is next to impossible without a working knowledge of Marxist-Leninist ideology. From open-sources literature, it appears that qualified members of the Soviet officer corps take the lead in this developmental process, but sanction requires the ultimate power of review and approval by the Politburo of the CPSU.

In 1965, Colonel General N.A. Lomov, a former department head of the Academy of the General Staff, commented on the leading role of the CPSU in doctrinal matters as follows:

The formulation of Soviet military doctrine is accomplished under the leadership of the Central Committee of the Party, under its direct control, on the basis of the theoretical and methodological principals of Marxism-Leninism.³

The formulation of basic military doctrine, however, can trace its beginning to Lenin who viewed politics to be the unfolding of the class struggle in whatever form it was forced to assume - for example, wars of national liberation. In this way, by modifying the teachings of Marx and Engels and applying them to military issues, Lenin formed basic Soviet military doctrine. Succinctly stated, military doctrine is considered by the Soviets to be a Party pronouncement on the military issues and tasks which confront the USSR.

A clearer understanding of Soviet military doctrine and its formulation should now allow for a more complete understanding of the vital position that the SRF fills in the national goals and objectives of the Soviet state.

The Khrushchev Era

The Strategic Rocket Forces was created as a separate service and the main striking force of the armed forces of the USSR by a resolution of the Central Committee of the Communist Party of the Soviet Union (CPSU) and the Council of Ministers of the USSR with a view of strengthening the defensive might of the Soviet state. It became the foundation of our military might, the principal means of containing an aggressor and decisively defeating him in the event of war.⁴

It is probable that during the creating of the SRF, the interservice rivalry within the Soviet Ministry of Defense was intense. Each of the major branches should have been quick to realize the emergence of the nuclear weapon and the impact it would have on the entire military structure. Each major branch, therefore, would not want to miss out on the obvious preferential treatment that such a capability would enjoy in the Soviet state.

For a time, it was felt that the responsibility for the ICBM would be added to the anti-aircraft missile element of the Ground Forces. The Soviet Navy then joined in the power struggle for fear of being left

farther behind, when the development of the SLBM component was just beginning. It was the single decision of Khrushchev which ended, at least temporarily, the debate. This top level consideration for the SRF has continued to the present until the SRF commands the preeminent position in the Soviet Armed Forces.

In 1973, Colonel General Gorchakov, the MPA representative to the SRF General Staff, underscored the continued special attention for the SRF:

The Strategic Rocket Forces are the youngest of the Armed Forces of the Soviet Union, but through the creative work and attention on the part of the Party, they have become in a very short time an invaluable nuclear rocket shield for the Fatherland.⁵

Khrushchev's Leading Role. It is generally accepted that Secretary Khrushchev was one of the strongest supporters of the SRF. Possibly the humiliating defeat which he suffered during the Cuban Missile Crisis for want of a larger nuclear deterrent against the West, was the added emphasis he needed to mount a developmental effort which was ambitious even by Soviet standards. In retrospect, Khrushchev has been criticized by some of his contemporaries for his apparent preoccupation with the SRF, at the expense of some of the other military branches. Khrushchev and Marshal Krylov had made many statements that reflected a desire to revert to the

prior defense policies of the early 1960's, when Khrushchev recommended a one-third cut in the conventional forces and full priority given to the construction of an all-powerful strategic missile force.

This emphasis on the SRF continued unabated, even after Khrushchev's ouster, to prompt Colonel General Shetemenko of the Soviet General Staff to conclude in 1965 that "it is clear that nowadays the Ground Forces cannot play their former decisive role, and the Queen of the Battlefield has surrendered her crown to the Strategic Rocket Forces."⁶ The missile had emerged supreme.

Since Brezhnev and Kosygin came to power in 1964, they have continued to follow Khrushchev's example of dramatizing Soviet nuclear missiles as the chief element of Soviet military power. It appears that the Soviet military to date has not come up with a real replacement to Khrushchev's main strategy based upon a largely static missile force.

FOOTNOTES

¹Harriet Fast Scott, translator and editor, Military Strategy, (Third ed.), by V. D. Sokolovskiy (Menlo Park: Stanford Research Institute, 1971), p. 68.

²I. Babenko. The Soviet Officer (Moscow: Progress Publishers, 1976), p. 13.

³Harriet Fast Scott, Soviet Military Doctrine: Its Formulation and Dissemination (Menlo Park: Stanford Research Institute, 1971), p. 24.

⁴Pavel B. Dankevich, "Rocket Shield of the Motherland," Strategic Review, (United States Strategic Institute, Fall 1974), p. 126.

⁵Gorchakov, op cit., pp. 24-25.

⁶S. Shetemenko, "Missiles Supreme?" Survival, May-June 1965, p. 143.

Chapter 7

SUMMARY AND CONCLUSIONS

The chief component of the armed forces is the Strategic Missile Forces, which today principally determine the defense might of state.¹

Since the late 1950's, the Soviet Union has embarked on an aggressive and ambitious military strategy based upon the primacy of the nuclear rocket weapon. The Soviet's obsession with defense and security of the Motherland is well known and has been a guiding principle in policies, strategies, foreign designs, and resource allocation for many years. Given the geographic size and location, and in light of the rather turbulent theme of Russian history, it is understandable to find a preoccupation with defense-planning playing such a dominant role.

The advent of the strategic, nuclear weapon with intercontinental range has served only to exacerbate the condition for the Soviets. No longer can they rely upon massive waves of men, armor, and artillery to overwhelm the enemy as they did against the Germans in the Great Patriotic War. Recent efforts by the Soviets to upgrade

their conventional forces may demonstrate hesitation to completely abandon a proven strategy of warfare, but the top leadership of the USSR obviously recognizes the paramount importance of a strategic arsenal. It is through this strategic arsenal that the Soviets have projected Soviet power throughout the world.

The main thrust of this paper was to review, through open source material, the current status of the Strategic Rocket Forces - with a prior assumption that the SRF continues as the primus inter pares of the Soviet Armed Forces. Much of the research illustrated an impressive emphasis which the Soviets have placed on the education of its officer corps. Whereas the education syndrome appears to cross the entire spectrum of the Soviet military establishment, the education of the SRF technocrat does seem excessive even by Soviet standards.

The main effort of chapter five was to demonstrate a heavy reliance on Slavic nationalities within the SRF. Unfortunately, no accurate breakdown of the nationalistic composition of the SRF could be located. Conjecture instead of hard facts provided the bulk of the proposition. But the strong reliance on the Russian nationalities by the top leadership of the USSR is not hard to transfer to such a sensitive, important command like the SRF.

The number of CPSU members in the SRF versus the other services also proved to be something of a

disappointment. Although the SRF has the highest percentage of CPSU members of any of the main branches of the armed forces, it shares this distinction with one and possibly two of the other four main branches. The communists appear to be strengthening their control by granting membership in the CPSU to more than 90 per cent of all officers in the military. Herbert Goldhamer's work was most valuable in this particular investigation.

In the view of this author, chapters three through five provide inconclusive evidence to support the premis inter pares thesis. For this reason, the military doctrine concept in chapter six was discovered and detailed. It is here that the case for the SRF can be made.

To adequately present and comment on the credibility and dominance of the nuclear doctrine and the part played by the SRF would require considerably more research and presentation than the scope of this paper allows. The nuclear doctrine is the cornerstone for the protection of the Soviet state - and the SRF is the mortar which provides the basic support.

The defense of the Motherland is not just rhetoric for the Soviets - it permeates and dominates the entire scheme and structure of the military. It consumes an inordinate amount of Soviet productivity and deeply influences almost all elements of the government.

Communist ideology states that in the historical epoch, once a socialistic country evolves within the capitalistic world, the capitalistic countries will bond together to attempt to destroy communism. While the Soviet state was militarily weak, the capitalistic countries stood a reasonably certain chance of destroying the communistic state. Hence the notion from Lenin that war between the Capitalists and Socialists was inevitable. It is the Soviet view that now, however, the military might of the USSR has risen to the point that the imperial powers dare not to attempt to destroy communism. Furthermore, the Soviets are daily adding to the power of their armed forces so that the eventuality of war grows less and less every day.

This is not to suggest that the Soviets consider the prospect for nuclear war as dissipating. Although they have committed themselves to avoiding war, they are just as committed to fighting and winning should the inherent conflict of Capitalism and Socialism be unable to resolve itself through other means. But the question of the Soviet's view on the inevitability of war has consumed greater works and authors than is the charter of this paper. The fact remains that the Strategic Rocket Forces of the Soviet Union are the main striking force of the Soviet state and it is only through the use of nuclear-equipped ICBMs could the Soviets do

significant damage to its number one enemy - the United States.

If the defense of the Motherland becomes necessary, there is very little doubt that the Soviets would consider it a fundamental conflict involving the defense of the most vital element of the Soviet state. This conflict would, of necessity, require for the imperialists to be repelled in the most convincing manner available. Logically, it would call upon the fundamental weapons of the Strategic Rocket Forces.

I can only say that it seems to me to be extremely dangerous to say that the Russians are beginning to envisage a world war that is non-nuclear. What to my mind they are beginning to envisage is that a world war at present is not very likely, but they stick to their views that if it comes, the strategic rockets will fly.²

FOOTNOTES

¹v. F. Tolubko, "The Law of Life Is Combat Readiness," Krasnaya Zvezda, December 21, 1975, p. 2; as cited in U.S. Joint Publications Research Service, trans., No. 66552, January 12, 1976, p. 5.

²Peter H. Vigor, The Soviet View of War, Peace, and Neutrality (London & Boston: Routledge & Keegan Paul, 1975), p. 158.

BIBLIOGRAPHY

A. BOOKS

Babenko, I. Soviet Officers. Moscow: Progress Publishers, 1976.

This book presents a historical look at the educational and organizational roles of the modern Soviet officer. Main concentration is on the impact of modern weaponry.

Erickson, John. Soviet Military Power. Washington, D.C: U.S. Strategic Institute, 1973.

This rather elaborate study deals with the evolution of the Soviet command structure from 1965 to 1970. Main benefit was realized from the study of personnel at the highest echelons of the military.

Goldhamer, Herbert. Soviet Soldier: Soviet Military Management at the Troop Level. New York: Crane, Russak and Company, 1975.

Attempts to fill a gap on the writings of Soviet administrative and control systems for day-to-day operations. The sections on military training and CPSU membership were particularly useful.

Hayes, Grace P., and Martel, Paul. eds. World Military Leaders. New York: R.R. Bowker Co., 1974.

Provided some useful biographical information on Generals Tolubko and Grigoryev.

Kolkowicz, Roman. The Impact of Modern Technology on the Soviet Officer Corps. California: The Rand Corp., 1966.

This short work concentrated on the reform movement caused by the transfer of priorities from the traditional to the modern officer corps. Of particular value was the discussion of the impact of the "technocrat" officer.

The Military Balance, 1975-1976. London: The International Institute of Strategic Studies, 1975.

Revealed some information on the numbers and disposition of elements of the SRF.

Scott, Harriet Fast, translator and editor, Military Strategy, (Third Ed.) by V. D. Sokolovskiy. Menlo Park: Stanford Research Institute, 1971.

Although there is still some question on how much of this massive work is sheer propaganda and how much reflects true Soviet strategy and doctrine, the discussion on how the Soviets have prepared for nuclear war was of significant value.

. Soviet Military Doctrine: Its Formulation and Dissemination. Menlo Park: Stanford Research Institute, 1971.

A good treatment on the personalities and institutions involved in the formulation of Soviet military doctrine and policy.

Vigor, Peter H. The Soviet View of War, Peace, and Neutrality. London & Boston: Routledge & Keegan Paul, 1975.

Of special import as it attempts to develop a feel for the evolution of Soviet strategies based upon perception of war. This book suggests a marked difference between the U.S. and the USSR.

B. ARTICLES

Beecher, William. "U.S. Arms Officials Worried by Soviet Articles," The New York Times, September 10, 1969.

Provided some background information on Marshal Krylov and his part in the nuclear arms race.

Brown, George S. "Strategic Forces: How America and the Soviets Compare." Commanders Digest, Vol 19, No. 9 April 15, 1976.

Of marginal value due to lack of detailed information concerning Soviet efforts to harden ICBM facilities.

Dankevich, Pavel. "Rocket Shield of the Motherland," Strategic Review, Fall 1974.

Traces the development of the SRF with emphasis on the content, means, and goals of troop training. Provided insight into the emphasis on combat readiness.

Gorchakov, P. A. "Loyal Sons of the Fatherland," Red Star, 1973.

Stresses the importance of the SRF despite the condition of detente between the U.S. and the USSR. Provided some insight on the degree of support the SRF receives from the CPSU.

Gwertzman, Bernard. "A Soviet Marshal Sees U.S. Threat," The New York Times, August 31, 1969.

This article presented some insight into the statements by Marshal Krylov on the nature of the U.S. threat to the Soviet Union.

Moskalenko, K. S. "Loyal Sons of the People." Soviet Military Review, No. 9, 1971.

Of little value to this research paper.

The New York Times. "Marshal Nikolai I. Krylov Dies: Directed Soviet Missile Forces," February 11, 1972.

This obituary notice disclosed some valuable biographical information on Marshal Krylov.

Prokolyev, Mikhail A. Soviet Minister of Education at the Twenty-fourth Party Congress; as cited in The New York Times, June 26, 1971.

Provided good supportive material on the Soviet education system for comparison with Goldhamer's book, cited above.

Scott, Harriet Fast. "Educating the Soviet Officer Corps," Air Force Magazine, March 1975.

Of great value in that this article provided the most recent information on the Soviet emphasis on education within the officer corps. Particularly good treatment on the schools dedicated to the SRF.

Scott, William F. "Soviet Aerospace Forces: Continuity and Contrast," Air Force Magazine, March 1976.

One of the most recent accountings on the organization of the Soviet military establishment.

_____. "Soviet Military Doctrine and Strategy; Realities and Misunderstandings," Strategic Review, Vol III, No. 9 (Summer 1975).

Provided some details on the early development of the Soviet nuclear doctrine.

Sharab, Theodore. "A New Missile Chief is Disclosed," The New York Times, May 10, 1972.

This article outlines the appointment of General Tolubko. A brief biographical sketch is provided.

Smith, R. G. "Political Controls Within the Structure of the Soviet Armed Forces - Some Problems?" Royal Air Force Quarterly, Spring 1976.

Provided some analysis from other Western powers. Particularly good treatment on the conflict of time and political indoctrination.

Tolubko, V.F. "The Law of Life Is Combat Readiness," Krasnaya Zvezda, December 21, 1975; translated and cited in U.S. Joint Publications Research Service, No. 66552, January 12, 1976.

This article on missile troop training and morale contributed to some understanding of SRF training and alert standards.

_____. "Sovereigns of the Missile," Izvestiya, November 15, 1974; translated and cited in U.S. Joint Publications Research Service.

Provided useful information on the cadre of personnel who initially staffed the SRF. Outlined the difficult task of mastering the technicalities of the missile field.

Shetemenko, S. "Missiles Supreme?" Survival, May-June 1965.

Formally announces the subordination of the Soviet Ground Forces in favor of the nuclear rockets of the SRF.

Washington Post. "Defector Confirms View of Life in the Soviet Military," February 17, 1977.

Information recently debriefed from Lieutenant Belenko was confirmatory with regards to education of the Soviet soldier.

C. OTHER SOURCES

Barker, Scott S. "Soviet Military Doctrine and Detente," A thesis presented to the Advanced Intelligence Branch, Defense Intelligence School, Washington, D.C., 1974.

This paper was very useful in the analysis of the development of Soviet military doctrine, particularly the active part played by the CPSU.

Sutton, Boyd. Personal Interview. Langley, Virginia, November 12, 1976.

Although not cited in this paper, Mr. Sutton was most helpful in the initial analysis of the personalities within the top echelons of the SRF, as well as the methodology of the research.

45

The following individuals were contacted during the course of their appearances as Guest Speakers at the Postgraduate Intelligence Course 1-77, Defense Intelligence School, Washington, D.C. While segments of the conversations with these individuals are not specifically quoted in this paper, they did provide much background information and guidance which assisted the author's analysis:

Mr. J. Dziak, Defense Intelligence Agency
Mr. S. Luptak, Defense Intelligence Agency
Mr. William F. Scott
Mrs. Harriet Fast Scott